Mycotic innominate artery pseudoaneurysm complicating mitral endocarditis

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A 59-year-old man developed a fast-growing mycotic innominate artery pseudoaneurysm complicating medically-treated mitral endocarditis caused by methicillin-susceptible Staphylococcus aureus. The pseudoaneurysm was revealed by ultrasound of the supra-aortic trunks and confirmed by magnetic resonance angiography (Fig. 1). The surgical treatment was performed with resection of the pseudoaneurysm and vascular reconstruction using cryopreserved arterial homografts (Fig. 2).

Figure 1: (A) Magnetic resonance (MR) angiography at admission showed a subocclusion of the left common carotid artery and innominate artery atherosclerosis without aneurysmal disease. (B) The MR angiography at 6 weeks showed a pseudoaneurysm of the innominate artery with a maximum diameter of 45 mm.

Figure 2: An intraoperative view; the pseudoaneurysm was resected and its neck on the aortic arch was closed through a running suture after lateral clamping of the aorta. Debranching of the innominate and the left common carotid artery (CCA) was performed using cryopreserved homografts.